

Aqueous coating compositions using polyalkylene glycol dialkyl ethers and process for multi-layer lacquer coating

Description of Technology: This invention relates to a heat curable aqueous coating composition which is in particular suitable for the production of lacquer coatings, in particular for multi-layer lacquer coatings, for example as an aqueous surfacer, water-borne base lacquer and preferably as a water-borne clear or topcoat lacquer.

Patent Listing:

1. **US Patent No.** 5,993,911, Issued on November 30, 1999, "Aqueous coating compositions using polyalkylene glycol dialkyl ethers and process for multi-layer lacquer coating." <a href="http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=5,993,911.PN.&OS=PN/5,993,911&RS=PN/5,993,911

Market Potential: Aqueous lacquers, in particular clear lacquers are described in the literature. DE-A-28 06 497 describes a multi-layer lacquer coating with a clear lacquer coating as the topcoat, wherein this clear lacquer is also intended to be water-borne. Water-borne clear lacquers are, however, not defined. The base lacquer coating composition which is used comprises elevated molecular weight, high viscosity polyesters dissolved in xylene which are mixed with acrylic resins. Such lacquers require large quantities of neutralising agents. DE-A-35 32 617 describes aqueous coating compounds based on high performance resins, for example polyester resins, in which resin particles, which may be acrylic resins, are dispersed. The compounds obtained are unstable and are subject to rapid phase separation.

The object of the invention is to provide an aqueous coating composition which is in particular suitable for chemical-resistant and non-yellowing coatings having very good topcoat lacquer qualities, a very slight tendency to sag and in particular very high resistance to pinholing, wherein the coating composition should have elevated storage stability. The coating composition should have an elevated processing solids content.

Benefits:

Suitable for chemical resistant and non-yellowing coatings

Applications:

Vehicles and vehicles parts.